

ENDOSCOPY

In

PRIMARY CARE

A report by the endoscopy subcommittee of the
Primary Care Society for Gastroenterology

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Introduction

The indications, risks and benefits of any new investigation need to be established. It is then important to decide where the investigation is provided most appropriately, and by whom. Individual doctors acquire skills during their training which they may wish to continue to use in their every day practice of general medicine; other doctors deliberately acquire skills while doing service provision jobs as clinical assistants/ hospital practitioners. Examples of the former skills would be proctoscopy and many of the minor surgical procedures; of the latter skills rigid sigmoidoscopy and the use of flexible endoscopes plus ultrasound.

With the advent of fundholding many GPs began to ask where it was most appropriate to provide endoscopy, especially in the face of unacceptably long waiting times for hospital units. GPs had been shown to be appropriate in their ability to select patients for various investigations, and direct access endoscopy services were becoming widespread. In addition, more and more gastroscopy examinations had been performed without intravenous sedation, and the procedure appeared rather safer than the published figures⁽¹⁾. As a consequence of this, a number of units were established in primary care using fundholding savings, and these units proved very popular with the patients being local and convenient. The British Society of Gastroenterology (BSG) produced its own booklet on standards for such procedures⁽¹⁾. Limited information exists in medical journals regarding Endoscopy in the Community⁽²⁻¹⁰⁾.

These units now have a track record to examine. They are run by competent doctors, some without the supervision of specialists, and in the current climate of audit and clinical governance, questions inevitably arise about the form in which this should happen. The report of the Joint Advisory Group (JAG) on Endoscopy Training⁽¹¹⁾ arrived, which lays down the minimum training requirements, but does not define minimum competence for a practising endoscopist. Finally, with the arrival of Primary Care Groups (PCG), and shortly Primary Care Trusts (PCT), questions need to be asked, and guidance provided so that these groups can evaluate the service provided by their local endoscopy unit, whether in primary care or District General Hospital (DGH).

It was against this background that the Primary Care Society for Gastroenterology (PCSG) decided to commission a study on the state of endoscopy in primary care. For the purposes of this document we include any unit outside consultant-led units as a "Primary Care Endoscopy Unit" and we make recommendations on the standards to be achieved by units providing endoscopy in primary care. A subcommittee (Appendix A) was formed with the brief:

1. To establish verifiable standards to be achieved by such units.
2. By consultation and discussion to examine current levels of practice, and in particular seek to derive figures about throughput, case mix and safety.
3. To achieve a consensus, and make recommendations.

This report is the product of that process, and we trust will make a worthwhile contribution to developing endoscopy in primary care. Since starting out on the production of this report the Government has produced its document on the "NHS Plan" in which there are proposals for GP specialists in endoscopy being specifically mentioned⁽¹²⁾. With continuing technical, clinical and political change some aspects of the report will need updating so we would recommend review every two years with addenda or rewriting.

Section 2

Survey and Analysis

Results of Questionnaire

The figures quoted here are derived from the postal questionnaire sent to 28 units identified as undertaking endoscopy in Primary care units. The full table is accessible on the website: www.pcsq.org.uk.

- 27 units replied (96%) of 28 units identified. This gives 27 units for analysis. 13 units were examining both upper and lower bowel ; 6 provided oesophago-gastro-duodenoscopy (OGD) only, 8 lower bowel only.
- The 27 units had been open for a total of 147 years giving an average of 5 years; the shortest was for 2 years and the longest for 18 years.
- Total procedures to date 36455, of these 24195 were OGD and 12260 lower bowel. Figures were supplied for annual throughput by 22 units, and this totaled 8478 procedures, which is the equivalent of one busy DGH unit. Annual throughput of OGD (12units) is 4506, and for lower end (10 units) 3972.

Procedure	Total Procedures
Gastroscopy	24195
Flexible sigmoidoscopy	7620
Rigid sigmoidoscopy	3254
Colonoscopy	1386
Total Endoscopies	36455

Table 1 Total number of endoscopies preformed

- The service is provided by 41 doctors and 68 nurses; no attempt is made to derive full time equivalents from these. For the doctors there was an accumulation of 458 years of experience, average 11 years.
- All but one unit were undertaking audit, and this information was shared with Health Authority or PCG, or the local audit group. Sixteen units had standard referral forms and fourteen had locally agreed guidelines.
- The urgent waiting time was often less than one week and averaged at 1.2 weeks. Using maximum quoted figures the average routine waiting time was 3.4 weeks, range 1-6.

Complications

For all procedures (36455 cases) there was one fatality, this occurred following a routine flexible sigmoidoscopy as a caecal blow out when a stenosing cancer of the transverse colon had acted as a one way valve for air insufflated. Morbidity (8964 cases) for lower bowel procedures led to 6 admissions:

3 perforations (colonoscopy), 3 unspecified. 2 observed on the unit for colic. 2 longer on unit (nausea).

For OGD (24195 cases) there was:

1 perforation of crico-pharyngeal pouch, admitted for drip and suck. Full recovery. 1 admission to A&E with chest pain, discharged 1 hour later diagnosed as trapped wind, 1 overnight stay for slow recovery from intravenous sedation.

From this we can conclude that endoscopy is a safe procedure in primary care and we can add to the only other published figure for morbidity in OGD (the BSG report quoted mortality 1:2000 and morbidity 1:200 from 14,149 cases) that in primary care it is 0 deaths in 24195, with 3 cases of known immediate morbidity. Clearly morbidity criteria may differ between the BSG report and this first report from primary care. This data was also retrospective, and there is a need for a prospective study using medical records and a validated questionnaire to look at the patient experience post examination. We have done a small study using a validated questionnaire looking at the patient experience immediately post examination in 4 units. We believe that almost all questionnaires were returned. 243 questionnaires available.

Patient satisfaction Survey taken over 4 weeks from 4 GP units

	Rating				
	<i>Excellent</i>	<i>Very good</i>	<i>Good</i>	<i>Fair</i>	<i>Poor</i>
Wait for appointment	126(52%)	75(31%)	30(12%)	11(4%)	1(0.4%)
Wait in unit	168(69%)	62(26%)	11(4%)	2(0.8%)	0
Manner of examination	226(93%)	13(5%)	4(2%)	0	0
Technical skill	225(93%)	16(6%)	2(0.8%)	0	0
Manner of staff	222(91%)	19(8%)	2(0.8%)	0	0
Explanation	207(85%)	34(14%)	2(0.8%)	0	0
Overall rating	216(89%)	26(11%)	1(0.4%)	0	0
	Yes	No			
Would you have it again?	242	1			
Would you have it here?	242	1			

The data suggests a very high level of patient satisfaction, 98% very good or. excellent as overall assessment. It also highlights how sensitive patients are to any wait for procedure appointment, or wait within unit as the answers to these questions are clearly at variance with the rest of their assessments.

Equipment

Olympus is still dominant in the market, supplying 20 units, with Pentax supplying 3, and, Heine, Welch-Allyn and Fujinon supplying one each. No information was obtained from one unit. Only 20 units had service contracts. Eleven units used video visualization, but only four kept a video record. 3 units had the facility for still photos.

All units doing OGD had defibrillators and the only unit without oximetry was not sedating patients. Oximetry was not routinely available where only lower bowel examination took place.

Eighteen units derived their ongoing supervision from sessions in the DGH, three from attending postgraduate meetings, two from "doing the job" and two units gave no information.

Section 3

The Competent Endoscopist

Anyone undergoing an endoscopy will want to know that their examiner is competent in the procedure, and experienced enough to recognize what is seen. The JAG report on training in endoscopy has given us standards in the endoscopy training requirements for all endoscopists regardless of background and we are more than happy to accept the JAG standard.

No official body has yet pronounced on the thorny issue of the maintenance of endoscopy skills, and knowledge. Three areas need to be looked at:

1. Number of endoscopies performed each year.
2. Supervision of practical skill level.
3. Maintenance of knowledge base.

1. Doctors working in endoscopy in primary care will largely be GPs although with developments in intermediate care another grade of doctor/ nurse may emerge. Before working in primary care units GP endoscopists should have been trained in a JAG approved unit, and have a minimum of five years' experience in hospital endoscopy. In order to maintain skills each individual endoscopist should be performing 200 procedures per year. Less than 100 procedures per year is unacceptable, and only acceptable if adding further sessions is in a PCG /PCT approved plan. The figure of 200 cases per year is not evidence based, but the judgment of six practising endoscopists.

2. On a regular basis any practising endoscopist should be prepared to demonstrate his/her practical competence to an equally competent colleague. This can be achieved by a colleague (doctor or nurse endoscopist) visiting the unit and inspecting the running of the unit, and also inspection of video recording of procedures as part of the assessment of the endoscopist's competence. Where the endoscopist is not working in parallel in a consultant-led unit, a regular visit to a specialist unit to undertake a joint list (alternating who does the examination) would seem to be the ideal. In the annual cycle it would also be ideal if one of the shared sessions took place in the home unit as a means of supervising the unit as a whole. A number of GP units do not currently have the approval of the specialist gastroenterologists in their local DGHs, and would experience difficulties in arranging this supervision. As a minimum an endoscopist in this situation should visit another GP unit once every 6 months, and have an annual supervision / inspection of the home unit by peer GP / nurse endoscopist, or regional gastroenterologist. It is to be hoped that such relationship difficulties will soon disappear by local agreement, but where feet are dragged it may be that PCGs / PCTs will want to exert pressure to achieve this.

3. Maintenance of knowledge base. The practising endoscopist will need to demonstrate that he/she is making every effort to remain up to date. As such it is mandatory that he/she maintain a professional development log book. In this a record should be kept of the number of endoscopies per year, the practical supervision received, journal subscribed to and courses/ lectures attended, and related further education (e.g. journals read).

Section 4

The Nursing Team

While an endoscopist may make the actual examination, the nursing team crucially resource the process from beginning to end. This will ensure continuity and support for the patient, a safe and efficient endoscopy room, and well-cared for and reliable equipment. Because endoscopy involves an invasive procedure nurses must be properly trained, and because cleaning procedures involve potential exposure to noxious chemicals they must know about the handling requirements, possible emergency action and have their own health checked from time to time. These two areas are covered below.

Endoscopy Nurse Requirements

All staff using glutaraldehyde must have a health review:

- a) Any history of dermatitis/allergic rhinitis/asthma, should not be in contact with glutaraldehyde.
- b) Any staff who develop such problems, should be removed from the work area and no longer work with glutaraldehyde.
- c) Annual lung function tests.
- d) Risk assessments for all glutaraldehyde handling staff.
- e) Detailed policy handling of glutaraldehyde spillage, that all staff should be familiar with.
- f) A chemical hazard information and packaging regulations file to be maintained, and be familiar to all staff should include: 1) Legal requirements 2) COSHH assessment form/results 3) Staff health/risk assessments 4) Hazard record for glutaraldehyde (reports of spillages/ handling).
- g) Health and Safety requirements file.

Endoscopy Nurse Training **Fundamental Minimal Requirements**

One nurse with previous endoscopy experience.

Other nursing staff need to attend:

- 1) Endoscope care/maintenance training course (Keymed or Pentax).
- 2) To attend endoscopy unit at local hospital for a minimum of 40 cases for each procedure and endoscope handling/cleaning experience, to review COSHH Regulations, at Work/Health & Safety.
- 3) Training in COSHH Regulations/ handling of glutaraldehyde / infection control by the experienced endoscopy nurse and in hospital placement.
- 4) Study day in sterilization /infection control.

All staff need to read / study COSHH Regulations / handling of glutaraldehyde and unit guidelines for cleaning/handling/disinfecting of endoscopes and procedure guidelines.

Section 5

The Safe Unit

This section aims to cover the facilities and procedures which contribute to a safe endoscopy for both patient and staff.

Minimum spatial requirement

After arrival a patient will be interviewed, their knowledge of the procedure prior to consent explored, and then assessed for fitness to undergo examination. This requires an interview room which is private. Reception and waiting room can be shared with other activities in the building. The endoscopy needs to be conducted in a room with adequate space for the staff, trolley/ examination couch, endoscopy equipment, and ancillary and safety equipment. Even where sedation is not given a short spell in a recovery room is good practice, and this should be adjacent to the endoscopy room so that the nurses can monitor the patient. A recovery room is essential where intravenous sedation is used. Finally, there needs to be an endoscope cleaning room with adequate extraction/ ventilation to make it safe for the staff.

Facilities required

These are the endoscopy equipment, the cleaning equipment, the patient monitoring equipment, and the resuscitation equipment. The scale of equipment will depend on the routine throughput of the unit and is listed in Appendix B.

Finally the unit should have protocols and procedures in administrative and clinical areas to which it adheres and for which it can be accountable. The areas will cover administrative and clinical. Administrative areas will delineate indications for endoscopy, referral details, waiting times, reporting of procedures, and ensuring that histology reports reach the referring clinician. Clinical areas will cover consent, fitness for procedure, informing the patient of the findings (with issue of leaflets), fitness for discharge, recording of findings and some form of log/day book or computer spreadsheet allowing for audit and the production of annual reports.

In addition all staff should have been immunized against Hepatitis B, shown sero-conversion, and had the requisite booster injections.

Section 6

Clinical Governance Issues

This chapter is written so that PCGs and PCTs are informed of the clinical governance issues surrounding endoscopy, and may be in a position to appraise critically the service provided by their provider unit. It draws on the detail of the previous chapters.

Any unit providing endoscopy should have a service agreement statement, which sets out its standards and procedural protocols. This statement should include:

- 1) **a) *List of clinical staff, qualifications, and years of experience.*** Where a unit is functioning as a stand-alone there should be in place a supervision arrangement, and if this proves impossible to achieve locally the PCG/PCT should appeal to the BSG (Regional representative) for the appointment of a supervisor.
 - b) *Clinical Guidelines for referral.*** With agreement it may be helpful to provide feedback to practices and PCGs/PCTs on referral rates so highlighting areas for ongoing education.
 - c) *Reporting of results.*** This should cover the immediate discharge note (preferably with the patient on discharge), the full examination report, procedure for histology report, and the immediate doctor to doctor communication of serious findings such as cancer. This area also needs to highlight whether the unit is providing a diagnosis only service, or the invitation exists for therapeutic and management advice so that in the event of findings (or complications from the procedure itself) that require referral on to secondary care all parties know who is responsible for action (two week wait for cancer).
- 2) ***Safety and Training*** The unit should be able to state what its safety regulations are both for patient and staff. For the patient clear protocols/ procedures are required for pre-procedure assessment, proper supervision during endoscopy, and recovery. For staff there should be compliance with COSHH regulations, and annual update training in resuscitation, manual handling of patients and the maintenance of a professional training record by the unit for both doctors and nurses.
- 3) ***Availability of audit data covering both clinical and management areas.*** This can be agreed locally and changed in the light of feedback. Clinical data should be available in an anonymised fashion of the principal clinical findings, DNA rates and repeat examinations, alongside the total number of examinations per unit and failure to achieve complete examination. If more than one endoscopist is involved then annual examination rates per endoscopist need recording. Patient satisfaction audits should be performed regularly and cover an agreed proportion of the annual throughput.
- 4) ***Waiting lists.*** This is an area where the small endoscopy units in general practice have an outstanding record as is shown in the survey. It is suggested that referrals should be marked by the referring clinician as urgent, priority and routine, so that audit can be made of the average waiting times for these categories against agreed times.

There may be other local issues which need to be addressed by a unit, and agreed in discussion with the PCG/ PCT.

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Appendix A

Composition of steering Group:

Dr J Gibson	MBBChir, MRCGP, Chairman
Dr J Galloway	FRCP, MRCGP, G.P Nominated RCGP
Dr P Evans	G.P, MA, FRCP
Dr R Spence	MBBChir, G.P
Dr J Featherstone	G.P, MBBS, DCH, MRCGP
Dr P Willoughby	DM, FRCP, Consultant Physician, Nominated by BSG.

Surveyed Units:

Dr E J Ainley, Dorset.
Dr R Aubrey, Bridge Cottage Surgery, Welwyn.
Dr L Braidwood, The Medical Centre, 2 Francis Street, Doncaster.
Dr P Chadwick, Cheshire.
Dr B R Contractor, Darlington, County Durham.
Dr R M Cottrill, Brook Hill Medical Centre, College Street, Leigh, Lancashire.
Dr J S O Dalrymple, Drayton Surgery Norwich Norfolk.
Dr P Evans, Jubilee Surgery, High Street, Titchfield, Hants.
Dr J Featherstone, Merseyside.
Dr J S Fitzgerald-Frazer, The Surgery, Wellington Road, Newport, Shropshire.
Dr J M Galloway, St James House Surgery, County Court Rd Kings Lynn.
Dr J Gibson, The Honiton Group Practice, The Surgery, Marlpits Road, Honiton, Devon.
Dr N Hall, Parkfield Medical Centre, 255 Parfield Road, Parkfields, Wolverhampton.
Dr N Hilmy, Bletchley.
Dr K Holtom, Oldbury Medical Centre, Albert Street, Warley, West Midlands.
Dr I C Kemp, Reading, Berks.
Dr H C Lang., Warsash, Hampshire.
Dr C Ogden, Prestwich Health Centre, Fairfax Road, Prestwich, Manchester.
Dr J M Price, Chichester, West Sussex.
Dr S Feldman, Fountain Medical Centre, Little Fountain Street, Morley, Leeds.
Dr D Ryan, Woodbrook Medical Centre, 28 Bridge Street, Loughborough, Leics.
Dr A Summers, East Coker, Somerset.
Dr R P Ward-Booth, The Surgery, 30 Borookhill, Lt Waltham, Chelmsford, Essex.
Dr J R F Welford, Girlington Surgery, 252 Girlington Road, Bradford, West Yorkshire.
Dr M J Whitaker, Didsbury, Manchester.
Dr I Wilson, Stafford.
Dr G Worsdall, Westfield Surgery, Waterford Park, Radstock, Bath, Avon.

Appendix B

PCSG QUESTIONNAIRE 1

Endoscopy In Primary Care

1. Where is the Unit?.....
Please specify: GP surgery (converted/ purpose built), community hospital, other (specify)
2. What procedures do you undertake:-

Gastroscopy
Flexible Sigmoidoscopy
Rigid Sigmoidoscopy
Colonoscopy

Any therapeutic procedures or biopsies, specify
3. What year did your Unit start?
How many procedures per year - total

Total number of procedures to date - (It would be helpful if you could break this latter figure also up into the number of procedures as indicated under question 2).

Gastroscopy
Flexible Sigmoidoscopy
Rigid Sigmoidoscopy
Colonoscopy
Other (please specify)
4. How many staff are involved in your Unit, both Doctors and Nurses
 - a) Doctors Whole-time equivalent

Nurses Whole-time equivalent
 - b) Can you describe your previous training experience?

Number of years of experience (Doctor)?

Courses attended?
 - c) Do you do any audit? With whom do you share this information?
5. Do you have locally agreed indications for endoscopy, etc If so please supply.
6. Do you have a standard referral form? If so please supply.

7. Can you please supply routine waiting time
- urgent waiting time
8. Can you list any complications or deaths that can be directly attributed to the Endoscopy since the start of your service? We hope to try to derive a complication rate. (We suggest under 'complications' you should look at delays in discharge that are an hour beyond expected /any vasovagal episodes /any reports of prolonged discomfort /any complaints made in writing by patients.)
9. Equipment details:
- a. Endoscopy equipment manufacturer
- Do you hold a Service Contract?
- Do you use Video?
- Do you use any method other than your own dictated report for recording the examination? i.e. Video tape
- b. Sterilizer manufacturer
- Do you hold a Service Contract?
- Sterilizing Agent
- c. Resuscitation equipment.
- Do you have immediate access to a defibrillator?
- Do you use Pulse Oximetry routinely?

Many thanks indeed. Please return Questionnaire 1 in the SAE provided. Please do not hold back your response to Questionnaire 1 pending completion of Questionnaire 2 - we appreciate that this may take more time. A second SAE is provided for returning this.

PCSG QUESTIONNAIRE 2

Primary Care Endoscopy (Clinical)

We would be grateful if you could supply answers to as many of the questions as possible. In particular could you please supply only the principle diagnosis per procedure i.e. that diagnosis thought to be the cause of the patients symptoms. This should afford the figures that can be aggregated. If you cannot supply these as totals since your unit started, then please answer the column for the last year.

Totals

Last Year

Hiatus Hernia

Oesophagitis

Barrett's

Other complication of GORD

GU

DU,

Other pathology of Stomach

Carcinoma of Stomach

Carcinoma of Oesophagus

Other pathologies

Normal

DNA